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Kyung-Geun Lee

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EXAMINER

DANIELSEN, NATHAN ANDREW

ART UNIT

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2627

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|-----------------------------------|--|
| Office Action Summary | Application No. 10/600,330 | Applicant(s) LEE ET AL. | |
| | Examiner Nathan Danielsen | Art Unit 2627 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,9,12,21,24,26 and 32-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,9,12,21,24,26 and 32-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Claims 1, 9, 11, 12, 21, 23, 24, 26, and 32-38 are pending. Claims 3, 14, and 19 have been canceled in applicant's amendment filed 23 February 2007. Claims 2, 4-7, 13, 15-18, 25, and 27-30 have been canceled in applicant's amendment filed 07 August 2007. Claims 8, 10, 20, 22, and 31 have been canceled in applicant's amendment filed 10 December 2007.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 9, 12, 21, 24, 26, 32, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Satoh et al (US Patent 5,870,374; hereinafter Satoh), in view of Ohno et al (US Patent Application Publication 2002/0024923; hereinafter Ohno).

Regarding claims 1, 12, and 32, Satoh discloses an information storage medium (and associated methods (see col. 3, line 65 through col. 4, line 5)) comprising:

a user data area provided with a sequence of basic recording units to record user data

(tracks 6a and 6b in figures 3 and 4),

wherein information about the user data area, where user data is recorded, is recorded in a

portion of each basic recording unit of the user data area (col. 3, lines 44-56), and

wherein the information about the user data area includes layer information of the

information storage medium recorded in the form of consecutive patterns of

identical intervals or in the form of different patterns of different sized intervals

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depending on different information storage layer (figure 5 and col. 3, lines 44-56; where the combination of SYNC, AM, TA, SA, and LA data, when represented as NRZI data in the form of marks and spaces (or pits), is inherently comprised of different patterns of different sized intervals, if only on the basis of LA data being different for each layer).

However, Satoh fails to disclose where a portion of each basic recording unit of the user data area is defined as at least one of a run-in area and a run-out area of each basic recording unit of the user data area.

In the same field of endeavor, Ohno discloses where a portion of each basic recording unit of the user data area is defined as at least one of a run-in area and a run-out area of each basic recording unit of the user data area (§ 17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the data structure of Satoh with that of Ohno, for protecting user data when recording data (§s 17 and 18).

Regarding claims 9 and 21, Satoh, in view of Ohno, discloses everything claimed, as applied to claims 1 and 12. Additionally, Satoh discloses where the information about the user data area is recorded using addresses (col. 3, lines 44-56).

Regarding claims 24 and 26, Satoh, in view of Ohno, discloses everything claimed, as applied to claim 1. Additionally, Satoh discloses where the information storage medium is one of recordable and reproduction-only optical discs (col. 3, line 65 through col. 4, line 5).

Regarding claim 33, Satoh, in view of Ohno, discloses everything claimed, as applied to claim 32. Additionally, Satoh discloses recognizing a layer of the storage medium based on the

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accessed information (col. 3, line 65 through col. 4, line 5), wherein the operating of the storage medium includes recording and/or reproducing data with respect to the layer (col. 3, line 65 through col. 4, line 5).

4. Claims 34-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Satoh, in view of Ohno, and further in view of Ito et al (US Patent 5,881,032; hereinafter Ito).

Regarding claims 34 and 35, Satoh, in view of Ohno, discloses everything claimed, as applied to claims 33 and 32. Additionally, Satoh discloses where the recognizing of the layer comprises recognizing the layer in response to the accessed information (col. 3, line 65 through col. 4, line 5). However, Satoh fails to disclose where the accessed information belongs to a predetermined group of addresses.

In the same field of endeavor, Ito discloses where the accessed information belongs to a predetermined group of addresses (col. 11, lines 31-47).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the data format of Satoh with that of Ito, for the purpose of identifying the recording layer of each sector (col. 11, lines 45-47).

Regarding claim 36, Satoh, in view of Ohno and Ito, discloses everything claimed, as applied to claim 35. Additionally, Satoh discloses where the identifying of the desired layer comprises:

recognizing a storage layer of the storage medium as the desired layer in response to the accessed information (col. 3, line 65 through col. 4, line 5); and

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in response to the accessed information not being the desired information, accessing another storage layer of the storage medium so as to determine whether accessed information thereof is desired (col. 4, lines 6-21).

However, Satoh, in view of Ohno, fails to disclose where the accessed information belongs to a desired/predetermined group of addresses.

In the same field of endeavor, Ito discloses where the accessed information belongs to a desired/predetermined group of addresses (col. 11, lines 31-47).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the data format of Satoh with that of Ito, for the purpose of identifying the recording layer of each sector (col. 11, lines 45-47).

Regarding claim 37, Satoh, in view of Ohno and Ito, discloses everything claimed, as applied to claim 36. Additionally, Satoh discloses where the operating of the storage medium includes recording and/or reproducing data with respect to the desired layer (col. 3, line 65 through col. 4, line 21).

Regarding claim 38, Satoh, in view of Ohno and Ito, discloses everything claimed, as applied to claim 32. Additionally, Satoh discloses the steps of: identifying storage layers of the storage medium (col. 3, line 65 through col. 4, line 47), wherein the identifying of the storage layers comprises:

recognizing a first layer of the storage layers in response to the accessed information (col. 3, line 65 through col. 4, line 21);

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in response to the accessed information not being the desired information, accessing a second layer of the storage layers so as to determine whether accessed information thereof is the desired information (col. 4, lines 6-21); recognizing the second layer of the storage layers in response to accessed information thereof being the desired information (col. 4, lines 6-21); and in response to the accessed information of the second layer not being the desired information, accessing another layer of the storage layers so as to determine whether accessed information thereof is the desired information (col. 4, lines 39-47).

However, Satoh, in view of Ohno, fails to disclose where the accessed information belongs to a desired/predetermined group of addresses.

In the same field of endeavor, Ito discloses where the accessed information belongs to a desired/predetermined group of addresses (col. 11, lines 31-47).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the data format of Satoh with that of Ito, for the purpose of identifying the recording layer of each sector (col. 11, lines 45-47).

Response to Arguments

5. Applicant's arguments filed 24 October 2008 have been fully considered but they are not persuasive.

a. Regarding applicant's arguments that Satoh fails to teach or suggest the claimed "layer information being recorded in the form of consecutive patterns of identical intervals or in the form of different patterns of different sized intervals", the examiner

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disagrees. Since all data recorded on optical discs are recorded using at least one of “consecutive patterns of identical intervals” and “different patterns of different sized intervals” (where a “different pattern of different sized intervals” needs only one interval having a size different from that of all other intervals to qualify as “different sized intervals”) and Satoh discloses where the layer address for each layer is unique from all other layer addresses (suggested by col. 4, lines 6-21 so that the recording/reproducing apparatus can accurately determine the desired layer), the layer addresses of Satoh would inherently qualify as "different patterns" of/comprising "different sized intervals" and would therefore read on applicant's claimed patterns of intervals. Applicant's attention is drawn to the disclosure of US Patent 5,881,037 which discloses the details of creating the marks and spaces of addresses, (e.g. when the address comprises the data word 75, the recorded address will comprise “consecutive patterns of identical intervals”; and when the address comprises the data word 138, the recorded address will comprise “different patterns of different sized intervals” (see figures 2 and 3)). Therefore, the preceding rejections are still deemed to be proper and are hereby maintained.

Closing Remarks/Comments

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Danielsen whose telephone number is (571)272-4248. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:00 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A.L. Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jorge L Ortiz-Criado/
Primary Examiner, Art Unit 2627

Nathan Danielsen
12/31/2008